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**PATENT  
Dkt. STL10465****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: **Nikki M. Bruner and John E. Young**  
Assignee: **SEAGATE TECHNOLOGY LLC**  
Application No.: **10/087,130** Group No.: **2133**  
Filed: **February 28, 2002** Examiner: **Joseph Torres**  
For: **EMULATION SYSTEM FOR EVALUATING DIGITAL DATA CHANNEL  
CONFIGURATIONS**

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Commissioner for Patents  
P.O. Box 1450  
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**APPLICANT'S REMARKS FOR SECOND  
PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Sir:

Applicant filed a Pre-Brief Request for Review on 8/8/2006. Instead of a Panel Decision, Applicant received another final rejection mailed 11/21/2006, in which the Examiner maintained all final rejections on the same grounds. In light of the Examiner not reopening prosecution on the merits, and believing the case remains not in condition for appeal, Applicant is resubmitting its request for the Pre-Brief Panel Review it did not receive.

**CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10\***

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(type or print name of person certifying)

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Preliminarily, a brief review of illustrative embodiments of the present invention:

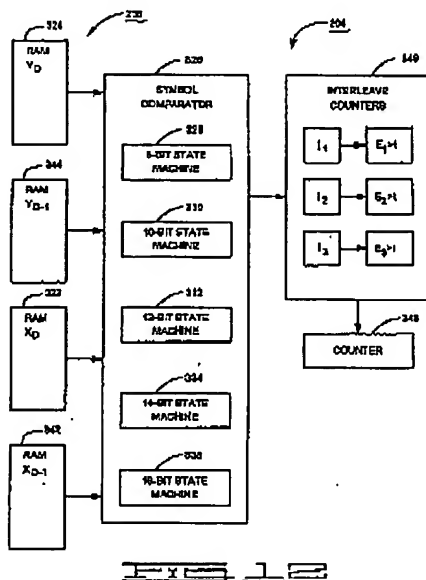


FIG. 12 is an illustrative functional block diagram for carrying out the steps of the CHANNEL PERFORMANCE CHARACTERIZATION routine of FIG. 11 (FIG. 11 was revised 11/16/2004). Input data is stored in block 322 (step 306 of FIG. 11), and readback data corresponding to the input data is stored in block 324 (step 314 of FIG. 11). One of the state machines 328, 330, 332, 334, 336 is used to arrange the stored input data (in block 322) into a first form of selected symbols and interleaves and store it in block 342; similarly, the readback data (in block 324) is arranged into the form of selected symbols and interleaves and stored in block 344 (block 316 of FIG. 11). The interleave counter 346 then compares the symbols of the data in block 342 to the symbols of the data in block 344 on an interleave basis ( $I_1, I_2, I_3$ ) and counts the number of erroneous symbols ( $E_1, E_2, E_3$ ). The number of erroneous symbols can then be compared to a threshold capability of the ECC scheme.

Importantly, after the number of erroneous symbols is determined for the first form of selected symbols and interleaves, a different state machine 328, 330, 332, 334, 336 is then employed to reevaluate the stored input data (in block 322) and the stored readback

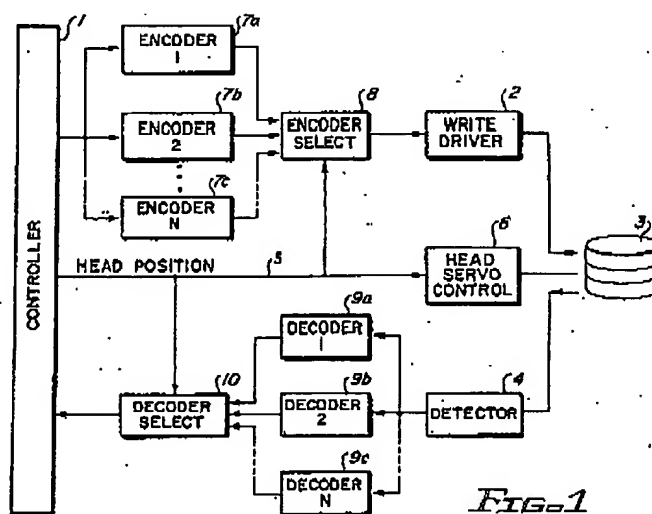
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data (in block 324) by placing them in a different form of selected symbols and interleaves.  
(see paras. [0074-0078])

Each of the rejected independent claims 1, 29, and 30 recites language to the effect of “characterizing stored data in a selected one of a plurality of different digital configurations.” Rejected independent claim 28 recites *means for predicting* covering the disclosed structure and equivalents thereof for performing substantially the same subject matter. As an example, independent claim 1 recites in part:

*a digital channel which stores input data to a data storage medium and subsequently retrieves output data from the medium made from the input data; and  
a circuit connected to the digital data channel which can  
characterize the stored input data and the retrieved  
output data in at least two alternative digital  
configurations....*

Independent claims 1, 28, 29, and 30 stand finally rejected under Section 103 as unpatentable over Ott '264 in view of Makansi '959. Makansi '959, which discloses a storage medium, discloses the following:



Applicant and the Examiner appear to agree in principle that Makansi '959 teaches receiving input data from the controller 1 and encoding it via a selected one of a plurality of encoders 7a, 7b, 7c. The encoded data is then stored to the disk stack 3. The stored data is subsequently decoded via a selected one of a plurality of decoders 9a, 9b, 9c.

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It may be fairly stated that Makansi '959 teaches "characterizing input data in at least two alternative digital configurations." However, that rendering ignores the recited claim language "the stored" modifying "input data." That is, Makansi '959 first characterizes the input data, and then stores the characterized input data. Makansi '959 does not teach or suggest characterizing the stored input data via the encoders 7a, 7b, 7c.

It may also be fairly stated that Makansi '959 teaches "storing characterized data in at least two alternative digital configurations," but that is not what claim 1 recites.

It may also be fairly stated that Makansi '959 teaches "characterizing the stored data in a selected one of a plurality of digital configurations" by the decoders 9a, 9b, 9c, but that is not what claim 1 recites.

However, the record is replete with the clearly erroneous statement by the Examiner that Makansi '959 teaches the *characterize the stored input data...in at least two alternative digital configurations* of claim 1, and the like in claims 28, 29, and 30.

IT IS CLEAR ERROR THAT THE EXAMINER HAS FAILED TO FACTUALLY SUPPORT A PRIMA FACIE CASE OF OBVIOUSNESS OF CLAIMS 1, 28, 29, AND 30 BY SUBSTANTIATING EVIDENCE THAT THE CITED REFERENCES TEACH OR SUGGEST ALL THE FEATURES OF THE REJECTED CLAIMS

The Examiner has not substantiated any evidence in the record that Ott '264 and Makansi '959, alone or together, teach or suggest all the recited features of independent claims 1, 28, 29, and 30, which include at least the following:

*characterize the stored input data and the retrieved output data in at least two alternative digital configurations....*  
(excerpt of claim 1)

*means for predicting error rate performance in relation to a selected digital data configuration of a plurality of different digital data configurations for both the same input data and the same output data.* (excerpt of claim 28)

*characterizing the stored data and the retrieved data in a selected digital configuration from a plurality of different selectable digital configurations.* (excerpt of claim 29)

*characterizing stored data in a selected digital configuration from a plurality of selectable digital configurations....* (excerpt of claim 30)

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The Panel will find an unresolved factual issue in that the Examiner has provided no evidence whatsoever that the cited references teach or suggest all the recited features of the independent claims. This leads to an unresolved legal issue that the Applicant should not be forced to go forward with appeal in the absence of a *prima facie* case of obviousness. Applicant now prays for an objective review of the facts of this case and a conclusion that the unresolved legal and factual issues must be resolved before this case should proceed to appeal.

IT IS CLEAR ERROR THAT THE EXAMINER HAS FAILED TO SUBSTANTIATE  
THE SECTION 112(2) REJECTION OF CLAIMS 28 AND 29

The Section 112(2) requirement for definiteness is objectively whether the skilled artisan would clearly understand the scope of the claimed subject matter. (MPEP 2171) The Examiner's stated understanding of the scope of claim 28 is itself erroneous because he ignores the fact that claim 28 is a means plus function claim reciting *means for predicting*. The proper test for definiteness, therefore, is whether the skilled artisan would recognize disclosed structure that is capable of performing the function recited by the means element. The Examiner's failure to properly construe claim 28 in rendering it indefinite is an unresolved legal issue making this case not in condition for appeal.

The Examiner maintained the rejection of claim 29 in the Office Action of 11/21/2006 for failing to set forth the claimed subject matter, by asserting that proper indentation is required. However, Applicant amended claim 29 in accordance with the Examiner's indentation requirement in its Response filed 7/10/2006. The Examiner maintaining the rejection in the face of Applicant's obviating amendment is an unresolved factual issue making this case not in condition for appeal.

Respectfully submitted,

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